

What is claimed is:

1. A radiological image pickup apparatus comprising:

a radiation detection section including an active matrix substrate, a radiation-sensitive semiconductor formed on the active matrix substrate, and a voltage application electrode formed on the semiconductor, the active matrix substrate including a charge-storage capacitor, a charge read switching element, and a pixel electrode for each unit cell with signal lines and scanning lines disposed like a lattice on the substrate; and

a cabinet for retaining said radiation detection section therein,

wherein at least a portion just above the voltage application electrode is formed of a nonconductive material in a surface lid section of said cabinet opposed to the voltage application electrode.

2. The radiological image pickup apparatus as claimed in claim 1, wherein any other portion than the nonconductive material portion in said cabinet is formed of a conductive material.

3. The radiological image pickup apparatus as claimed in claim 1, wherein the whole surface lid section of said cabinet is formed of a nonconductive material.

4. The radiological image pickup apparatus as claimed
in claim 3, wherein any other portion than the nonconductive
material portion in said cabinet is formed of a conductive
5 material.

5. The radiological image pickup apparatus as claimed
in any of claims 1 to 4, wherein the radiation-sensitive
semiconductor and the voltage application electrode on the
10 active matrix substrate are molded by using an insulating
substance so as to cover the whole of the radiation-sensitive
semiconductor and the voltage application electrode by the
insulating substance, and wherein

a shield member made of a conductive material is formed
15 so as to cover any other area than the portion just above the
voltage application electrode from a side wall of said cabinet
to a margin of the voltage application electrode.

6. The radiological image pickup apparatus as claimed
20 in claim 5, wherein the shield member is electrically connected
to a portion formed of a conductive material in an extension
of said cabinet.

7. The radiological image pickup apparatus as claimed
25 in claim 6, wherein charge detection amplifiers and a gate driver

connected to ends of the signal lines and the scanning lines on the active matrix substrate are formed on the active matrix substrate and molded by using the insulating substance.

- 5 8. The radiological image pickup apparatus as claimed in claim 6, wherein the shield member is formed of a material made of metal with an atom number in the range of 40 to 90 or a material whose part is the metal.